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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/880,329	06/12/2001	John S. Eden	10010357-1	5804

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EXAMINER	
WEST, JEFFREY R	

ART UNIT	PAPER NUMBER
2857	

DATE MAILED: 09/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/880,329	EDEN, JOHN S.	
	Examiner	Art Unit	
	Jeffrey R. West	2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *18 June 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-22* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 June 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. In view of the Appeal Brief filed on June 18, 2004, PROSECUTION IS HEREBY REOPENED. New grounds of rejection are set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Objections

2. Claims 1 and 15 are objected to because of the following informalities:

In claim 1, line 9, to avoid problems of antecedent basis, "the operating system interface" should be ---an operating system interface---. A similar change should be made to claim 15, line 5.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 1, 2, 4, 10, 11, 15 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,961,133 to Talati et al. in view of U.S. Patent No. 5,309,352 to Stubbs.

Talati discloses a platform within a computing resource environment (column 2, lines 28-33), the platform comprising an execution engine that receives input commands and initiates processing of the input commands (column 4, lines 30-33, column 5, lines 43-45 and column 33-column 37), a routine (column 5, lines 45-53), and components that serve to adapt hardware and software interfaces of the computing resource environment to the execution engine and routine and that shield the execution engine and routine from dependencies on the hardware and software interfaces of the computing resource environment, including an operating system interface (column 4, lines 33-45).

Talati discloses that the hardware and software interfaces of the computing resource environment include interfaces to external hardware components and peripherals, external data storage and data I/O devices, communications hardware, operating system interfaces, and software interfaces to programs and routines (column 4, lines 35-45) and the hardware and software interfaces of the computing resource environment include user I/O components that adapt the execution engine to user I/O interfaces, result handing components that adapt the execution engine to

data output and presentation interfaces including interfaces to disk files, printers, and databases (column 4, lines 5-16).

As noted above, the invention of Talati teaches many of the features of the claimed invention and while the invention of Talati does teach an execution engine and routine, Talati describes the engine and routine for a generic procedural application (column 3, line 59) but does not specify a user-controlled test application. Talati also does not include a test sequencing component for handling launching and execution behavior of groups of test routines.

Stubbs teaches a method and system for optimizing termination in systems of programmable devices by receiving input data commands for defining the tests that are to be performed and the set of test devices required (column 4, lines 39-42) and creating a user-defined modular test program (column 5, line 66 to column 6, line 1) wherein the modular program includes a test sequencing component for handing launching and execution behavior of groups of test routines (column 2, lines 3-9) for the component under test (column 5, lines 40-41).

It would have been obvious to one having ordinary skill in the art to modify the invention of Talati to specify that the execution engine and routine be used in a user-controlled test application, as taught by Stubbs, because Talati teaches a generic procedural application that could carry out many of a plurality of operations while remaining portable (Talati, column 1, lines 11-15) and Stubbs suggests that a testing environment would be an obvious choice for application of such portability in order to

allow a single test to be used to test a plurality of devices, thereby reducing cost while increasing efficiency (column 2, lines 3-19).

Further, it would have been obvious to one having ordinary skill in the art to modify the invention of Talati to including a test sequencing component for handling launching and execution behavior of groups of test routines, as taught by Stubbs, because, as suggested by Stubbs, the combination would have also reduced cost and increased efficiency by allowing the routines to be re-ordered, re-positioned, and re-used in order to perform the different measurements desired (column 11, lines 9-16).

Further, it is noted that claim 10 recites the limitations, "can be concurrently handled" and "may be executed". It has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform and therefore does not constitute a limitation in any patentable sense since the structure of Talati and Stubbs could perform such limitations. Similarly, claims 4 and 6 recite the limitation, "can concurrently include and employ."

5. Claims 3, 5, 6, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talati et al. in view of Stubbs and further in view of U.S. Patent No. 5,826,012 to Lettvin.

As noted above, the invention of Talati and Stubbs teaches many of the features of the claimed invention, and while the combination does teach adapting the test execution engine to operating system interfaces, the combination does not explicitly

specify that the operating system include memory management interfaces and timer interfaces.

Lettvin teaches a boot-time anti-virus and maintenance facility including an operating system that includes memory management interfaces and timer interfaces (column 2, lines 4-15).

It would have been obvious to one having ordinary skill in the art to modify the invention of Talati and Stubbs to explicitly include that the operating system include memory management interfaces and timer interfaces, as taught by Lettvin, because Talati and Stubbs teach adapting the test execution engine to operating system interfaces Lettvin suggests the well-known interfacing functions of an operating system such as the operating system of Talati and Stubbs (column 2, lines 4-15).

6. Claims 7, 9, 18, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talati et al. in view of Stubbs and further in view of U.S. Patent No. 5,628,017 to Kimmerly et al.

As noted above, the invention of Talati and Stubbs teaches many of the features of the claimed invention including calling test routines to the test execution engine, the combination does not explicitly include components to adapt the test execution engine and the test routine to each other.

Kimmerly teaches a method and system for providing event-response capabilities including components to adapt an execution engine and a routine to each other (column 3, lines 7-16). Kimmerly also teaches that routines are located within a

common executable or as a separate executable within the computing resource (column 4, lines 26-31).

It would have been obvious to one having ordinary skill in the art to modify the invention of Talati and Stubbs to explicitly include components to adapt the test execution engine and the test routine to each other, as taught by Kimmerly, because it is conventional in the art to retrieve a plurality of routines for use in an executable and Kimmerly suggests a method for performing such common routine retrieval in the test execution of Talati and Stubbs that would implemented such modular programming as well as provided the ability to employ routines programmed separate from the main executable thereby allowing greater ease in editing and corresponding increased functionality (column 3, lines 7-23 and column 5, lines 10-12).

7. Claims 8 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talati et al. in view of Stubbs and Kimmerly and further in view of U.S. Patent Application Publication No. 2001/0052114 to Koh et al.

As noted above, Talati in combination with Stubbs and Kimmerly teaches many of the features of the claimed invention and while the combination does include adaptation to link the test execution to test routines in a common executable as well as a separate executable within the computing resource, the combination does not specifically include a link to an external test routine.

Koh teaches a data processing apparatus that employs program routines stored externally (0077)

It would have been obvious to one having ordinary skill in the art to modify the invention of Talati, Stubbs, and Kimmerly, to specifically include a link to an external test routine, as taught by Koh, because, as suggested by Koh, the combination would have allowed the routines to be programmed externally thereby allowing simple modification of the routines as well as increased flexibility of the program operation (0077).

8. Claims 12-14 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Talati et al. in view of Stubbs and further in view of U.S. Patent No. 5,598,562 to Cutler et al.

As noted above, the invention of Talati and Stubbs teaches many of the features of the claimed invention except for including a mode component that interprets user input as testing platform commands and dispatches appropriate routine calls with a single mode component active at each time through activation and deactivation.

Cutler teaches a system and method for adding new waitable object types to object oriented computer operating systems including a mode component that interprets user input as operation commands and dispatches appropriate routine calls with a single mode component active at each time through alternating activation and deactivation of user and kernel modes (column 4, lines 19-52).

It would have been obvious to one having ordinary skill in the art to modify the invention of Talati and Stubbs to include a mode component that interprets user input as testing platform commands and dispatches appropriate routine calls with a single mode component active at each time through activation and deactivation, as taught by Cutler, because Talati and Stubbs includes user interfaces for interacting with the testing operation and Cutler suggests the corresponding conventional method for allowing user interfaces to the operation of the program while protecting the program by using separate modes and the controlling accessibility (column 4, lines 10-26, 47-52 and line 62 to column 5, line 7).

Further, it is noted that claim 14 recites the limitation, "may be elicited". It has been held that the recitation that an element is "capable of" performing a function is not a positive limitation but only requires the ability to so perform and therefore does not constitute a limitation in any patentable sense since the structure of Talati, Stubbs, and Cutler could perform such limitations.

Response to Arguments

9. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

IBM Technical Bulletin No. NN9101193, "Architecture for a Test Control System" teaches a test control system that provides software support to control a collection of hardware and software functions for the purpose of manufacturing product test and verification including a logical interface for a class of instruments by isolating application and system software from specific hardware.

U.S. Patent No. 5,339,261 to Adelson et al. teaches a system for operating application software in a safety critical environment.

U.S. Patent No. 5,004,978 to Morris, Jr. et al. teaches a method for regenerating in-circuit test sequences for circuit board components.

U.S. Patent No. 5,581,491 to Biwer et al. teaches a high-throughput testing apparatus.

U.S. Patent No. 6,173,316 to De Boor et al. teaches a wireless communication device with markup language based man-machine interface including a teaching that on operating system control memory management and timer interfaces.

U.S. Patent No. 5,867,710 to Dorris et al. teaches portable microkernel operating system verification and testing.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey R. West whose telephone number is (703)308-1309. The examiner can normally be reached on Monday through Friday, 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (703)308-1677. The fax phone numbers for the organization where this application or proceeding is assigned are (703)308-7382 for regular communications and (703)308-7382 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.

jrw
September 7, 2004

MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800